REMARKS

Claims 1-7 and 14 have been cancelled. Claims 8 has been amended. Claim 10 has been amended to correct minor clerical error. Claims 8-13 and 15-16 are now pending in this application. Support for the amendments is found in the existing claims and the specification as discussed below. Accordingly, the amendments do not constitute the addition of new matter. Applicant respectfully requests the entry of the amendments and reconsideration of the application in view of the amendments and the following remarks.

Claim 8 has been amended to clarify the meaning of the purified botulinum neurotoxin. As described on page 5, lines 16-24 of the present specification, the purified botulinum neurotoxin is a neurotoxin which is separated from a non-toxic protein constituting a botulinum toxin (progenitor toxin). While the progenitor toxin is a purified botulinum toxin complex having a molecular weight of from about 300 kD to 500 kD, the separated neurotoxin usually has a molecular weight of 150 kD. In the present invention, only the separated neurotoxin having a molecular weight of 150 kD is used.

The Examiner's attention is directed to the specification at page 3, lines 2-4 where the effect of the purified botulinum neurotoxin is described. The purified neurotoxin blocks neurotoxin in a shorter time than the progenitor toxin (i.e. the botulinum toxin complex).

Rejection under 35 U.S.C. § 112, second paragraph

Claims 8-16 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 has been amended as suggested by the Examiner.

In view of Applicants' amendment, reconsideration and withdrawal of the above ground of rejection is respectfully requested.

Rejection under 35 U.S.C. § 103(a) (Borodic, Johnson)

Claims 8-9, and 12, 13, 15, and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Borodic (US 5,183,462)in view of Johnson, et al. (US 5,939,070).

The Examiner stated that the speed or rate at which Applicants' neurotoxin works, relative to other neurotoxins, to treat muscle hyperactivity is not a claim limitation.

Claim 8 has been amended to recite "wherein the time period to blockage of neurotransmission is shorter compared to the botulinum toxin complex". Accordingly, the time period to blockage of neurotransmission is now a claim element.

As argued previously, Borodic discloses a method of treating muscle hyperactivity, comprising administering a partially purified botulinum toxin to a patient with muscle hyperactivity. As the Examiner has admitted, Borodic does not disclose that the toxin in the pharmaceutical preparation is in the fully purified form. The disclosed example of the botulinum toxin is OCULINUM available from Allergan Pharmaceuticals, Inc. which is a progenitor toxin. Borodic is quite silent about the use of the purified 150 KD neurotoxin.

Johnson et al. ('070) disclose a hybrid botulinal neurotoxin comprising heavy and light chain combinations that are not present in nature. Johnson et al. ('070) also disclose a method for creating the hybrid neurotoxin by isolating botulinal neurotoxin heavy and light chains from the botulinum toxin and linking the heavy and light chains into a hybrid neurotoxin with a linker. The heavy and light chains are not of the same serotype. Johnson et al. ('070) suggest that this hybrid toxin molecule is used to avoid the immune response of the patient (col. 6, lines 1-10). As is seen from the fact that no animal model experiment is conducted in Johnson et al., Johnson et al. ('070) are quite silent about the use of the 150 KD neurotoxin for treatment of the muscle hyperactivity and the treatment effect thereof. Thus, the concept of the Johnson et al. ('070) is different from that of the present invention.

Thus, even if the cited references are combined, the use of the 150 KD neurotoxin for treatment of the muscle hyperactivity is not described. Thus, no *prima facie* showing of obviousness can be established by the cited references. Moreover, even if there were a *prima facie* showing of obviousness, the unexpected advantage of the present invention would clearly evidence its nonobviousness. That is that the use of the 150 KD neurotoxin unexpectedly provides a treatment effect much more rapidly than the toxins of the prior art. This advantage is particularly important when used on a patient that needs treatment with a fast-acting remedy. These advantages would not be expected from either of the cited references. As discussed above, the time period to blockage of neurotransmission is now a claim element. Claim 8 has been amended to recite "wherein the time period to blockage of neurotransmission is shorter compared to the botulinum toxin complex".

In view of Applicants' amendments and arguments, reconsideration and withdrawal of the above ground of rejection is respectfully requested.

Rejection under 35 U.S.C. § 103(a) (Donovan, Johnson)

Claims 8-9 and 12-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Donovan (US 2001/0053369) in view of Johnson, et al. (US 5,939,070)

The Examiner stated that the speed or rate at which Applicants' neurotoxin works, relative to other neurotoxins, to treat muscle hyperactivity is not a claim limitation.

Claim 8 has been amended to recite "wherein the time period to blockage of neurotransmission is shorter compared to the botulinum toxin complex". Accordingly, the time period to blockage of neurotransmission is now a claim element.

Like the Borodic reference described above, Donovan discloses a method of treating muscle hyperactivity, comprising administering a partially purified botulinum toxin to a patient with muscle hyperactivity. As the Examiner has admitted, Donovan does not disclose that the toxin in the pharmaceutical preparation is in the fully purified form. Donovan is quite silent about the use of the 150 KD neurotoxin and the advantage thereof.

Johnson et al. ('070) is the same reference discussed above in connection with the rejection in which it is combined with Borodic. Even if this reference were combined with Donovan, the use of the 150 KD neurotoxin for treatment of the muscle hyperactivity and its advantage that a treatment effect on a patient of the muscle hyperactivity that needs treatment with a fast-acting remedy is exhibited faster than the progenitor toxin, are not expected from the combination. As discussed above, the time period to blockage of neurotransmission is now a claim element. Claim 8 has been amended to recite "wherein the time period to blockage of neurotransmission is shorter compared to the botulinum toxin complex".

In view of Applicants' amendments and arguments, reconsideration and withdrawal of the above ground of rejection is respectfully requested.

Rejection under 35 U.S.C. § 103(a) (Aoki, Johnson, Allergan)

Claims 8-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Aoki, et al. (US 6,319,505) in view of Johnson, et al. (US 5,939,070) and Allergan, Inc. (package insert for Botox®).

The Examiner stated that the speed or rate at which Applicants' neurotoxin works, relative to other neurotoxins, to treat muscle hyperactivity is not a claim limitation.

Claim 8 has been amended to recite "wherein the time period to blockage of neurotransmission is shorter compared to the botulinum toxin complex". Accordingly, the time period to blockage of neurotransmission is now a claim element.

As discussed previously, Aoki et al. disclose a method of treating muscle hyperactivity, comprising administering a partially purified botulinum toxin to a patient with muscle hyperactivity. As the Examiner has admitted, Aoki et al. do not disclose that the toxin in the pharmaceutical preparation is in the fully purified form. Aoki et al. are quite silent about the use of the 150 KD neurotoxin and the advantage thereof. Johnson et al. ('070) is discussed above, while Allergan, Inc. simply discloses that Botox is a purified neurotoxin complex. None of these references suggest the use of the 150 KD neurotoxin as presently claimed.

Even if the cited references are combined, therefore, the use of the 150 KD neurotoxin for treatment of the muscle hyperactivity and its advantage that a treatment effect on a patient of the muscle hyperactivity that needs treatment with a fast-acting remedy is exhibited faster than the progenitor toxin, are not expected from the combination. As discussed above, the time period to blockage of neurotransmission is now a claim element. Claim 8 has been amended to recite "wherein the time period to blockage of neurotransmission is shorter compared to the botulinum toxin complex".

In view of Applicants' amendments and arguments, reconsideration and withdrawal of the above ground of rejection is respectfully requested.

Rejection under 35 U.S.C. § 103(a) (Graham, Johnson, Allergan, Shore Laser)

Claims 8, 9, 12, 13, 15, and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Graham (US 6,395,277) in view of Johnson, et al. (US 5,939,070), Allergan, Inc. (Package insert for Botox®; http://www.botox.com/download/BotoxPI.pdf) and Shore Laser (http://www.shorelase.com/BottoxA.html).

The Examiner stated that the speed or rate at which Applicants' neurotoxin works, relative to other neurotoxins, to treat muscle hyperactivity is not a claim limitation.

Claim 8 has been amended to recite "wherein the time period to blockage of neurotransmission is shorter compared to the botulinum toxin complex". Accordingly, the time period to blockage of neurotransmission is now a claim element.

As presented previously, Graham discloses a method of treating muscle hyperactivity, comprising administering a partially purified botulinum toxin to a patient with muscle hyperactivity. As the Examiner has admitted, Graham does not disclose that the toxin in the pharmaceutical preparation is in the fully purified form. Graham is quite silent about the use of the 150 KD neurotoxin and the advantages thereof.

Johnson et al. ('070) and Allergan, Inc. are discussed above. Shore Laser simply discloses that Oculinum is an earlier name for Botox. Even if the cited references are combined, therefore, the use of the 150 KD neurotoxin for treatment of the muscle hyperactivity and its advantage that a treatment effect on a patient of the muscle hyperactivity that needs treatment with a fast-acting remedy is exhibited faster than the progenitor toxin, are not expected from the combination. As discussed above, the time period to blockage of neurotransmission is now a claim element. Claim 8 has been amended to recite "wherein the time period to blockage of neurotransmission is shorter compared to the botulinum toxin complex".

In view of Applicants' amendments and arguments, reconsideration and withdrawal of the above ground of rejection is respectfully requested.

CONCLUSION

In view of Applicants' amendments to the claims and the foregoing Remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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Dated: August 9, 2007

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